EJVES Extra **4**, 16–17 (2002)
doi:10.1053/ejvx 2002.0162, available online at http://www.idealibrary.com on IDEAL®

SHORT REPORT

Testicular Pain – an Unusual Presentation of Ruptured Aortic Aneurysm

D. Maharaj*, **B. B. Chang**, **R. C. Darling** and **D. Shah**

Institute of Vascular Health and Disease, Albany Medical Center, Albany, NY, U.S.A.

We report the case of a 68-year-old male who presented to our emergency department with severe acute testicular pain and syncope. A precipitous fall in his hematocrit along with the presence of a pulsatile expansile abdominal mass prompted the diagnosis of ruptured aortic aneurysm (AAA). He underwent emergency repair of the AAA and was subsequently discharged after an uneventful hospital stay. Our case demonstrates an unusual presentation of ruptured AAA, which is potentially lethal if unrecognised.

Key Words: Testicular pain; Ruptured aortic aneurysm.

Introduction

Ruptured or leaking AAA can present a formidable diagnostic dilemma, especially when not suspected. Advances in critical care and technology over the last decade have not improved our ability to identify this potentially lethal complication.[1] Delayed diagnosis and referral to specialised services accounts in part for the high mortality rate of this condition.[2] Anterior rupture can present with syncope and sudden death,[3] while posterolateral leaks can present with back, flank or abdominal pain, shock and syncope.[4] Ruptured AAA presenting with acute testicular pain is indeed rare, with less than 10 cases reported in the world literature. Our report re-emphasises the need to have a high index of suspicion for this complication of AAA in patients who present with syncope and vague abdominal or urinary symptoms.

Case Report

A 68-year old male began having acute bilateral testicular pain while resting in bed. He subsequently collapsed at home, and was brought to hospital after resuscitation by the paramedics. There was no history of trauma, rigours, abdominal or flank pain, or urinary symptoms. He was a known hypertensive, and gave no past history of renal calculi. He admitted to having smoked a pack of cigarettes per day for many years. He was found to be afebrile, with a pulse of 100 per min and a blood pressure of 165/65. Physical examination revealed a non-tender expansile abdominal mass, 7 cm in diameter and absent bowel sounds. His testes were palpably normal and non-tender.

His electro-cardiogram showed sinus tachycardia and his chest X-ray was normal. His white blood cell count was not elevated. His haematocrit fell from 40% at home to 28% in the emergency room. Further diagnostic facilities were unavailable at the time. One hour after admission, the patient went into shock requiring 4 units of packed cells, fresh frozen plasma, and cryoprecipitate.

He was taken urgently to the operating room where via a left retroperitoneal approach a large retroperitoneal clot was found, with a 7 cm leaking infrarenal AAA. An aorto-bifemoral bypass was performed using a 16 × 8 mm PTFE bifurcation graft.

He spent 2 days in the surgical intensive care unit and was discharged from hospital after 1 week. He has been followed up for the past 7 years and has remained relatively well during this period.

* Please address all correspondence to: D. Maharaj, 12 Park View, Trincity, Trinidad, West Indies.

Discussion

The differential diagnosis of testicular pain includes testicular or testicular appendage torsion, orchitis, renal calculi, prostatitis, varicocele and vasculitis.[5] Testicular pain due to aorto-iliac disease has been reported before, but is indeed a rarity. This symptom has been described with iliac aneurysms[6] and aortic dissection.[7] Less than 10 cases of testicular pain due to ruptured AAA have been reported.[8–10] In many instances the diagnosis was made at postmortem.

The postulated mechanism for this symptom is compression of the visceral afferent pain fibres from the testes by clot or rapid expansion of the aneurysm prior to rupture.[11] These fibres pass from the pelvic splanchnic nerves via the hypogastric plexus to the thoracic and lumbar dorsal roots. The neural pathway is embedded within the psoas muscle and thus can be compressed by a laterally expanding mass.

Delayed diagnosis and referral to the relevant subspecialists accounts for the relatively high mortality rate of this condition. When the presenting symptom is testicular pain, this delay is almost inevitable. Examination of the abdomen revealing a pulsatile expansile mass along with a precipitous fall in hematocrit clued us into the diagnosis. It is critical that all patients presenting with testicular pain have detailed examination of the abdomen, and emergency personnel be aware of this rare symptomatology of this lesion that is lethal if not diagnosed and treated early.

References

1 Heller JA, Weinberg A, Arons R *et al*. Two decades of abdominal aortic aneurysm repair: have we made any progress? *J Vasc Surg* 2000; **32**: 1091–1101.
2 Hatori N, Yoshizu H, Shimizu M *et al*. Prognostic factors in the surgical treatment of ruptured abdominal aortic aneurysms. *Surg Today* 2000; **30**: 785–790.
3 Budd JS, Finch DR, Carter PGA. Study of the mortality from ruptured abdominal aortic aneurysms in a district community. *Eur J Vasc Surg* 1989; **3**: 351–354.
4 Logan AJ, Bourantas NI. Mortality from ruptured abdominal aortic aneurysm in Wales. *Br J Surg* 2000; **87**: 966–967.
5 Artman MR, Burkle FM Jr. Acute abdominal aortic aneurysm presenting as isolated testicular pain. *Am J Emerg Med* 1987; **5**: 45–47.
6 Ali MS. Testicular pain in a patient with aneurysm of the common iliac artery. *Br J Urol* 1983; **55**: 447–448.
7 Chan-Tack KM. Aortic dissection presenting as bilateral testicular pain. *N Engl J Med* 2000; **343**: 1199.
8 Crausman RS, Bravo K. Ruptured abdominal aortic aneurysm masquerading as testicular pain. *Am J Emerg Med* 1997; **15**: 445.
9 O'Keefe KP, Skiendzielewski JJ. Abdominal aortic aneurysm rupture presenting as testicular pain. *Ann Emerg Med* 1989; **18**: 1096–1098.
10 De Marco R, Evans JM. An unusual case of testicular pain. *Hosp Pract* 1997; **32**: 197–201.
11 Cawthorn SJ, Giddings AE, Taylor RS, Thomas MH. Isolated testicular pain: an unrecognized symptom of the leaking aortic aneurysm. *Br J Surg* 1991; **78**: 886–887.